

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-19 (cancelled)

Claim 20 (New): A three dimensional sensor device incorporated into a seam of a primary container, comprising:

a biosensor;

a sensor compartment having an interior and an exterior enclosing the biosensor, said sensor compartment further having a surface allowing external viewing of the biosensor;

a separation barrier forming a portion of the sensor compartment, separating the interior from the exterior of the sensor compartment; and

at least one gated pore contained within the separation barrier allowing fluid communication between the interior and exterior of the sensor compartment, with the gated pore being initially closed by a functional occlusion material.

Claim 21 (New): The sensor device of claim 20, wherein the separation barrier separates the interior of the sensor compartment from a primary container.

Claim 22 (New): The sensor device of claim 20, wherein the at least one pore is occluded with a responsive material.

Claim 23 (New): The sensor device of claim 20, wherein the functional occlusion material is selected from the group consisting of cellulosics, non-cellulosic non-protein polymers, protein polymers, lipid bilayers, and lipid-containing composites.

Claim 24 (New): The sensor device of claim 20, wherein the functional occlusion material exhibits a response selected from the group consisting of eroding, dissolving, and changing three-dimensional form.

Claim 25 (New): The sensor device of claim 24, wherein the response results from a change selected from the group consisting of a change in solvent concentration, a change in pH, a change in temperature, bacterial action, endotoxin action, and enzymatic action.

Claim 26 (New): The sensor device of claim 20, wherein the surface allowing external viewing permits optical sensing of the biosensor.

Claim 27 (New): The sensor device of claim 20, wherein the sensor compartment has walls comprised of an opaque material.

Claim 28 (New): The sensor device of claim 20, wherein the separation barrier is constructed from a material selected from the group consisting of fibril membranes, microporous membranes, and capillary-pore membranes.

Claim 29 (New): The sensor device of claim 20, wherein the biosensor is comprised of:

a solid substrate; and

a bioactive detector molecule and signal material.

Claim 30 (New): The sensor device of claim 29, wherein the bioactive detector molecule and signal material are a fluorescent receptor complex.

Claim 31 (New): The sensor device of claim 29, wherein the bioactive detector molecule and signal material are a fluorochrome-receptor complex.

Claim 32 (New): The sensor device of claim 29, wherein the bioactive detector molecule and signal material are a combination of a first fluorescent receptor and a

second fluorescent receptor, the second receptor emitting detectable light of a unique wavelength on excitation by fluorescent resonance transfer by the first fluorescent receptor.

Claim 33 (New): The sensor device of claim 29, wherein the bioactive detector molecule and signal material are a combination of a first receptor and a second receptor, the first receptor binding a cell and the second receptor undergoing a detectable spectral change in response to material released by the cell bound to the first receptor.

Claim 34 (New): The sensor device of claim 29, wherein the bioactive detector molecule and signal material are a combination of two inhibited fluorescent groups linked by an enzymatic cleavage site, and wherein enzymatic action cleaves the enzymatic cleavage site and releases the fluorescent inhibition.

Claim 35 (New): The sensor device of claim 29, wherein the bioactive detector molecule and signal material are a combination of a first receptor and a second receptor, the first receptor binding a cell capable of releasing an enzyme and the second receptor being an inhibited fluorescent group wherein the enzyme releases the fluorescent inhibition.

Claim 36 (New): The sensor device of claim 21, wherein the primary container is closed for analysis.

Claim 37 (New): The sensor device of claim 20, wherein the device is capable of aseptic operation.

Claim 38 (New): The sensor device of claim 20, wherein the external sensing is remote sensing.